

## Directional Coupler 10 dB SMA Female from 500 MHz to 2 GHz

### Directional Couplers Technical Data Sheet

**C-1002-10**

#### Description

Model C-1002-10 from Werbel Microwave is a single directional coupler that covers the frequency range of 500 MHz to 2 GHz in an aluminum enclosure measuring 3.60 x 0.60 x 0.38 inches. Finish is gray paint. SMA female connectors are stainless steel. Insertion loss is 0.9 dB max and VSWR at all ports is very low, at 1.20:1 max. High directivity performance of 23 dB minimum. Designed to handle 50 watts in the forward direction at room temperature. Made in USA.



Specification	Min	Typ.	Max	Units
Frequency	500		2,000	MHz
Impedance		50		Ohm
Coupling		10 ± 1.0		dB
Frequency Sensitivity (Flatness)		± 0.75	± 1.00	dB
Insertion Loss Measured at Highest Frequency (above theoretical coupling/splitting loss)		0.6	0.9	dB
Directivity	23	25		dB
Main Line VSWR		1.15	1.20	:1
Secondary Line VSWR		1.15	1.20	:1
Input Power (CW) into 1.2:1 max load VSWR			50	Watts
Reverse Power (CW) into 1.2:1 max load VSWR			3	Watts
Termination			1	Watt

#### Mechanical

Connector Interface	SMA-Female
Operating Temperature*	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight	1.5 oz (42 g)
Humidity	10-90% non-condensing
Environment	Indoor Use Only

#### Materials

##### RoHS and REACH Compliant

Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

\* Design to meet based on materials. Production-tested at +25 °C. External heatsink and convection cooling recommended to maintain body temperature below +50 °C.



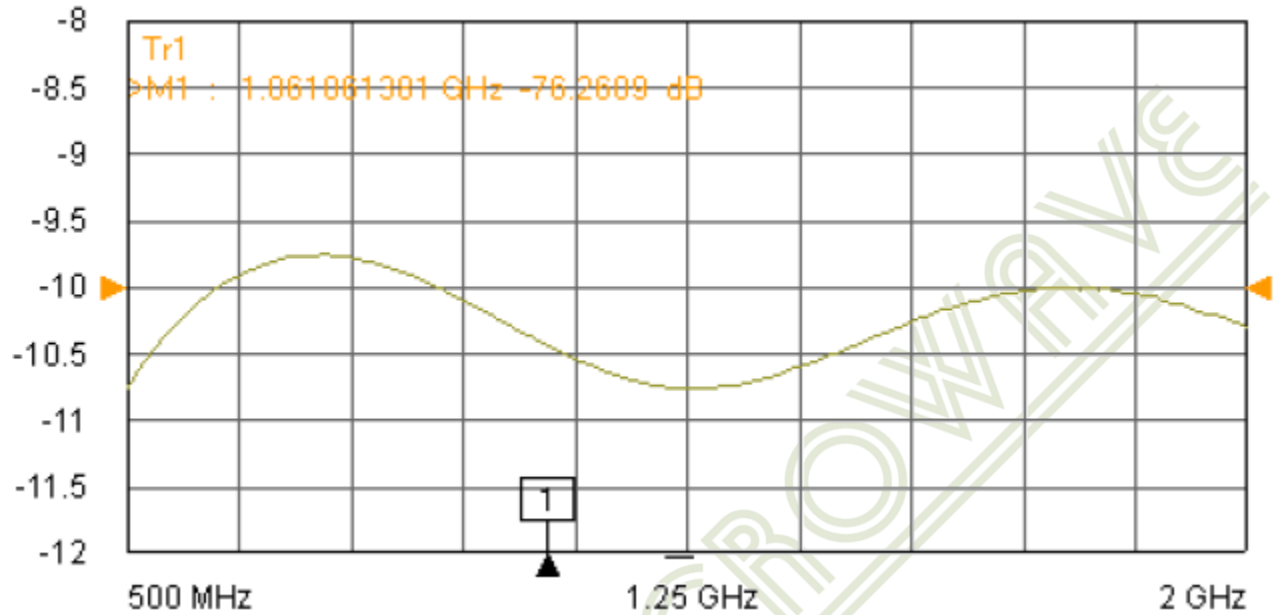
**MADE IN USA**

**ISO 9001:2015**

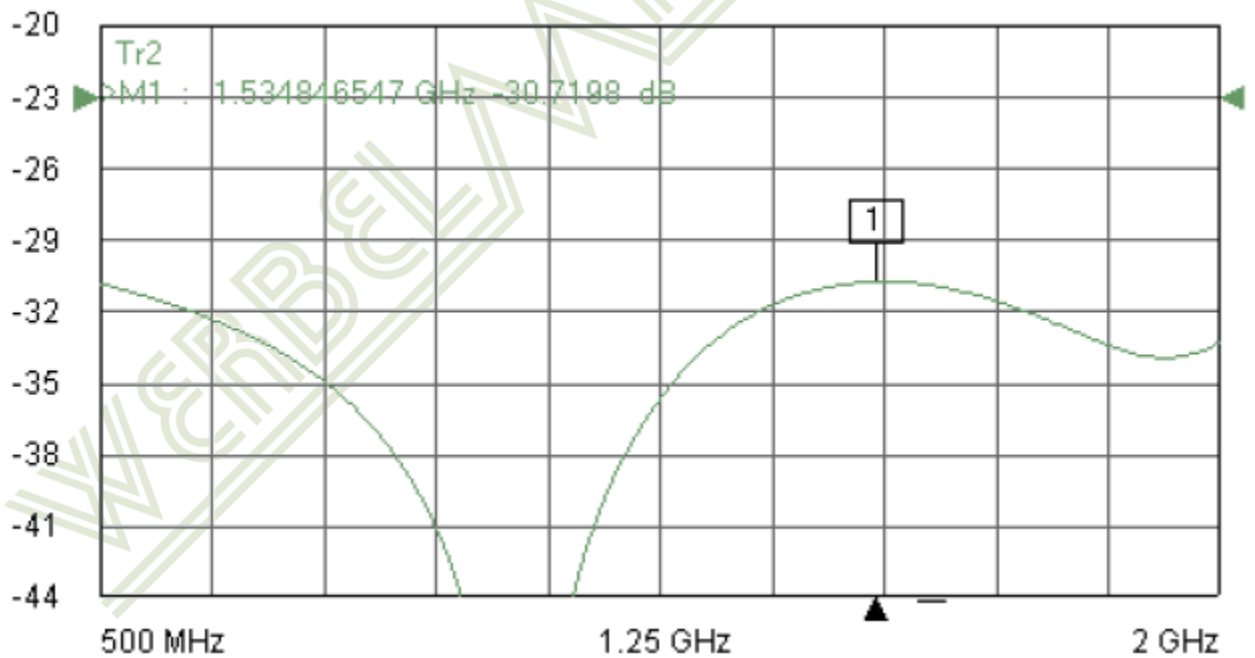
**Certified Company**

## Typical Performance at +25 °C

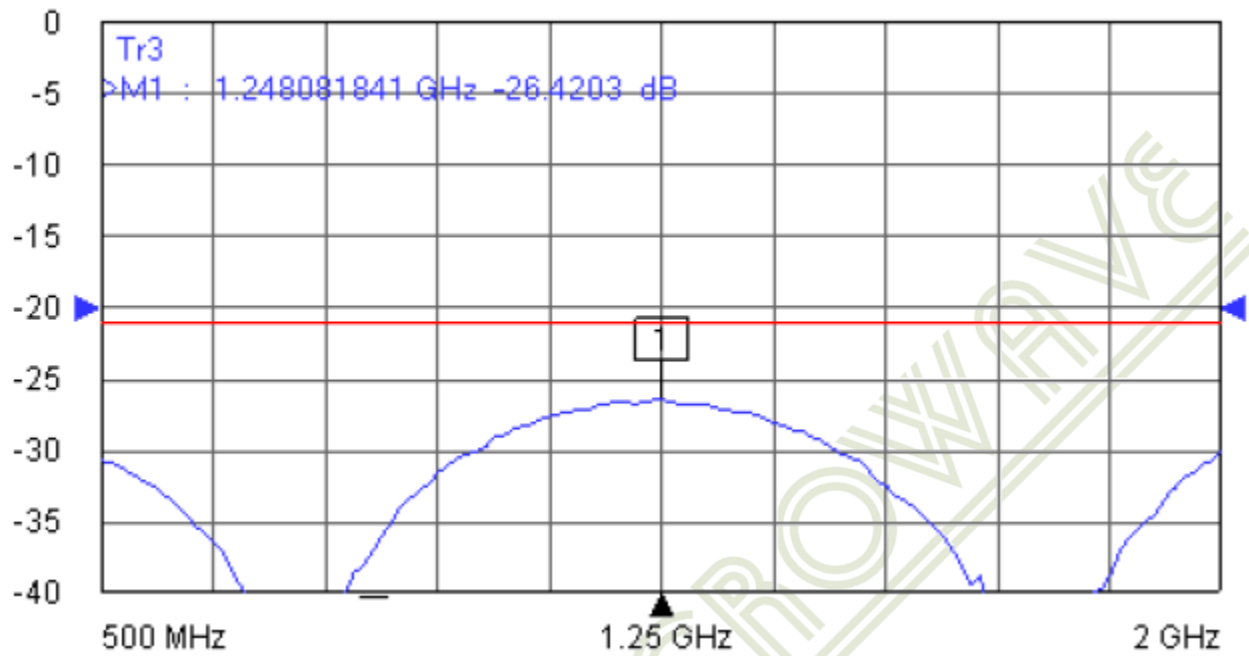
### Coupling Value and Flatness



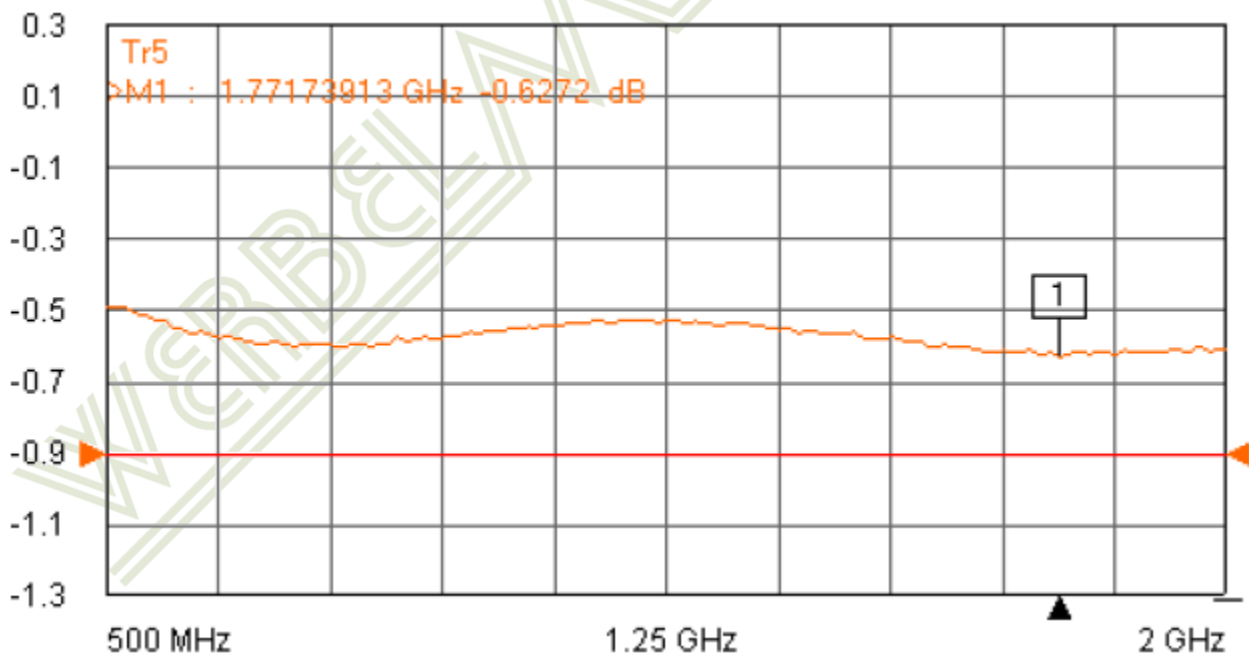
### Directionality



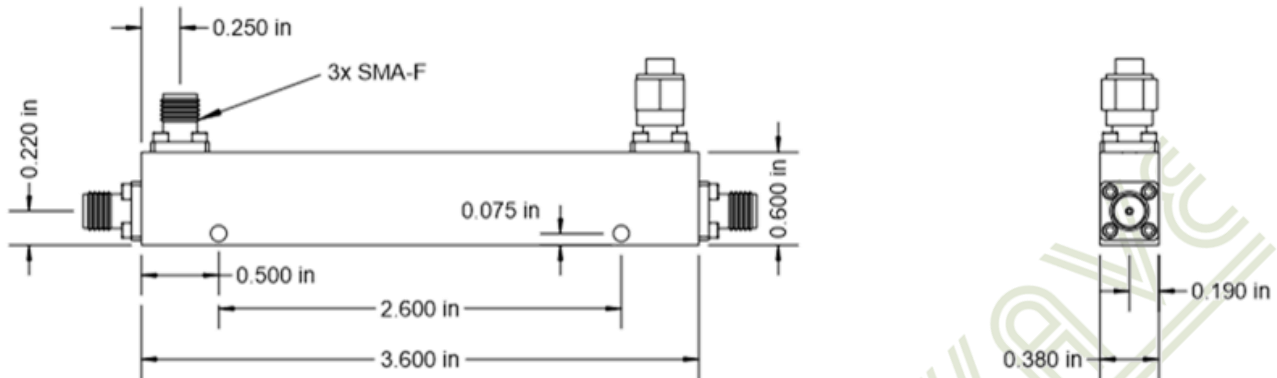
## Return Loss



## Insertion Loss



## Outline Dimensions



Outline # OL-1002

Dimensions are in inches, [mm] shown for convenience.

Tolerances on 2-pl decimals:  $\pm .03$ . 3-pl decimals:  $\pm .015$ .

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